**YEAR 11 BIOLOGY**

**UNIT 1**

**AREA OF STUDY 1: CELLS IN ACTION**

**THE AMAZING CELL**

**WORKSHEET**

Using your text book and Biozone answer the following questions:

1. Explain the process of cellular differentiation
2. What is morphogenesis?
3. Cell death
   1. Why do cells die?
   2. Explain how cell death is important in the development of the vertebrate embryo.
   3. What is apoptosis?
   4. Name 2 places where you find “permanent cells”, and explain what is meant by this term.
4. Stem Cells
5. What are they?
6. Why are they considered to be a revolutionary way of treating certain diseases (such as leukaemia) and injuries (such as tendon tears).
7. Why is the use of stem cells considered controversial?
8. Choose 2 different types of plant cell (page 88 Biozone, text book page 80). For your choices:
   1. Draw a labeled diagram showing the specialized features of your chosen cell
   2. Explain how these features define the role of this type of cell in the plant
9. Choose 2 different types of animal cell (page 89 Biozone and text book page 80). For your choices:
   1. Draw a labeled diagram showing the specialized features of chosen cell
   2. Explain how these features define the role of this type of cell in the animal